

A Survey-based Exploratory Study of Indian Pediatricians' Perspectives on Constituents of Infant Formula on Infant Gut Health

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Supplementary File

Supplementary Table 1: Questionnaire for HCP paediatricians to understand their knowledge and attitude while prescribing infant formula.	
Paediatric HCP demographics	
Specialty of the physician:	
a) Pediatrics	b) Pediatrics and neonatology
Years in practice:	
a) <1	b) 1-5 c) 6-10 d) >10
Approximately how many infants (0–6 months) do you manage per month for feeding, gastrointestinal, or general discomfort concerns?	
a) <10	b) 11-25 c) 26-50 d) >50
Clinical burden of GI symptoms and gut health	
How frequently do parents seek medical advice for the following symptoms in formula-fed infants?	
Excessive crying/fussiness:	
i) Never	ii) Rarely iii) Sometimes iv) Often v) Very often
Regurgitation/spitting up:	

i) Never ii) Rarely iii) Sometimes iv) Often v) Very often

Vomiting:

i) Never ii) Rarely iii) Sometimes iv) Often v) Very often

Infantile colic (gas/flatulence):

i) Never ii) Rarely iii) Sometimes iv) Often v) Very often

Bloating/abdominal distension:

i) Never ii) Rarely iii) Sometimes iv) Often v) Very often

Hard stool/constipation:

i) Never ii) Rarely iii) Sometimes iv) Often v) Very often

Loose stool/diarrhea:

i) Never ii) Rarely iii) Sometimes iv) Often v) Very often

Sleep disturbance (night wakings):

i) Never ii) Rarely iii) Sometimes iv) Often v) Very often

How significantly does parental anxiety related to infant crying or feeding discomfort impact your consultation time and follow-up load?

i) Significant impact ii) Moderate impact iii) Minimal impact iv) Varies widely

Based on your clinical experience, what outcomes/metrics do you use to conclude whether gut comfort has improved?

a. Reduced crying/fussiness

b. Less regurgitation/vomiting

c. Improved stool consistency (e.g., softer, less hard)

d. Changes to desired stool frequency

e. Reduced gas/distension/bloating

f. Improved sleep (fewer night wakings)

g. Growth parameters (weight gain, length)

h. Parent/caregiver satisfaction

i. Reduced gut-related paediatrician visits

Understanding of infant formula ingredients and perceived clinical efficacy

How important is balanced gut microbiota for infant gut comfort?

i) Extremely important ii) Moderately important iii) Slightly important iv) Not important

How strongly do you believe that if gut microbiome is stable, nutrient absorption will be better? i) Strongly agree ii) Agree iii) Disagree iv) Strongly disagree
How important do you consider adding both prebiotics and probiotics in infant formulas to support an infant's digestive health and immune system development? i) Very important ii) Important iii) Somewhat important iv) Not important
In your opinion, the increase colonization of beneficial gut bacteria with the use of infant formula is influenced by Use of synbiotics (Combination of prebiotics and probiotics): i) Strongly agree ii) Agree iii) Disagree iv) Strongly disagree Use of inulin and FOS as prebiotic in infant formula: i) Strongly agree ii) Agree iii) Disagree iv) Strongly disagree
What attribute of the infant formula plays a superior role in modulating gut microbiome, and providing benefits such as improved digestion and GI comfort? Presence of synbiotics: i) Very important ii) Important iii) Somewhat important iv) Not important Presence of one prebiotic (either only FOS or only GOS) i) Very important ii) Important iii) Somewhat important iv) Not important Presence of fiber blend (inulin and FOS): i) Very important ii) Important iii) Somewhat important iv) Not important
Do you believe synbiotics would influence nutrient absorption better than any other fiber blend? i) Strongly agree ii) Agree iii) Strongly disagree iv) Disagree
Which ingredient of a formula is most effective in supporting nutrient and fat absorption? a. Presence of specific synbiotic blend b. Presence of structured fats (e.g., SN-2 palmitate / beta-palmitate) c. Both are equally important d. Unsure
Based on your clinical experience, in formula-fed infants which aspect of formula is clinically and scientifically proven to provide relief from colic/fussiness? a. Synbiotics- specific probiotic and prebiotic blend b. Structured fat-positioned formulas (e.g., SN-2 palmitate/beta-palmitate)

c. Both provide similar benefit d. No clear difference/unsure
Based on your clinical practice, for colic relief, how would you compare the benefits of infant formula containing synbiotics or any other fiber blend and beta palmitate? a. Much better with synbiotics b. Much better with prebiotic blend, other than blend of GOS/FOS c. No difference
Which protein profile of infant formula do you prefer to support easier digestion? a. Whey-dominant b. Casein-dominant c. Equal casein: Whey ratio d. Protein profile does not affect that much
In your clinical practice, how important is a whey-dominant protein profile for reducing GI discomfort in infants? a. Extremely important b. Moderately important c. Somewhat important d. Not important
Would you agree that stool consistency is a major parental concern? a. Yes b. No
Which formula ingredient according to you, is very important to support softer stools? a. Higher whey-to-casein ratio/whey-predominant protein b. 100% Lactose as carbohydrate source c. Structured fats (SN-2 palmitate / beta-palmitate) d. Probiotics and prebiotics (GOS/FOS) e. Optimal calcium: Phosphorus ratio of 2 (as present in breastmilk) f. Synbiotics g. Unsure
How would you rate the following ingredients that support softer stools? a. Whey Predominant:

i) Very Important ii) Important iii) Somewhat important iv) Not important

b. 100% Lactose:

i) Very important ii) Important iii) Somewhat important iv) Not important

c. Beta palmitate:

i) Very important ii) Important iii) Somewhat important iv) Not important

In your experience, have you come across the association of improved sleep duration with any aspect of formula?

a. Yes

b. No

22. If yes, rate the importance of following aspect with improved sleep duration.

a. Balanced gut microbiome as it influences through gut-brain axis:

1. Very important 2. Important 3. Somewhat important 4. Not important 5. Not scientifically proven
6. Not answered

b. Iron and folic acid supplementation/beta palmitate:

1. Very important 2. Important 3. Somewhat important 4. Not important 5. Not scientifically proven
6. Not answered

23. Which benefits are associated with gut microbiome modulation due to formula containing *L. reuteri* and/or GOS/FOS?

a. Reduced colic symptoms

b. Improved constipation

c. Reduced diarrhea

d. Reduced regurgitation

e. Less crying or irritability

f. Better overall digestive tolerance

g. Well accepted all these benefits observed

h. Unsure/No clear difference observed

Clinical practice and recommendations

24. What is your clinical experience of giving a formula containing "Synbiotics" as compared with a formula not containing synbiotics?

a. Synbiotics offer more relevant benefits

b. Prebiotic fiber blend offers more relevant benefits

c. Neither shows major clinical impact
25. How often do you recommend infant formulas containing synbiotics to infants as it is well accepted, supports better digestion and GI comfort? a. Very often b. Often c. Sometimes d. Rarely
26. In your clinical experience, what is the acceptability of formulas containing synbiotics (by parents or caregivers)? a. High b. Moderate c. Neutral d. Rarely
27. How often do you change between different infant formulas for GI discomforts in 0-6 months infants? a. Very often b. Often c. Sometimes c. Never
28. In your clinical experience, in cases of formula fed infants suffering from GI discomfort, does the change of formula improves the gut comfort? a. Yes b. No
29. How long does it generally take after a formula change to see improvement in gut comfort? a. Less than 24 hours b. Within 24–72 hours c. 4–7 days d. No Noticeable improvement
30. When prescribing a formula to an infant, which outcome is key for your clinical decision-making? a. Well accepted and digestive tolerance b. Reduction in crying and fussiness

c. Achieving reliable gut comfort

d. Addressing immune support needs after gut comfort is established

e. Both are addressed simultaneously